



ANDHRA PRADESH POLLUTION CONTROL BOARD
Paryavaran Bhavan, APIIC Colony Road,
Gurunanak Colony, Autonagar, Vijayawada- 520007
Website: <https://pcb.ap.gov.in/>



RENEWAL OF CONSENT TO OPERATE & AUTHORIZATION ORDER

Order No: 492545/APPCB/VJA/GNT/HO/CTO/2024

Date: 25/08/2024

CONSENT is hereby granted to operate under section 25/26 of the Water (Prevention & Control of Pollution) Act, 1974 and under section 21 of Air (Prevention & Control of Pollution) Act 1981 and amendments thereof and Authorisation under Rule 6 of the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 & Amendments thereof and the rules and orders made there under (hereinafter referred to as 'the Acts', 'the Rules') to:

**M/s. Bhavya Cements Private Limited,
Tangeda (V), Dachepalli (M),
Palnadu District.
E-mail: environmental@bhavyacements.in**

(Hereinafter referred to as 'the Applicant') authorizing to operate the industrial plant to discharge the effluents from the outlets and the quantity of emissions per hour from the chimneys as detailed below:

i. Outlets for discharge of effluents:

Outlet No.	Outlet Description	Max Daily Discharge	Point of Disposal
1	Trade effluents	33 KLD	After primary treatment, the trade effluent shall be sent to STP for further treatment along with the domestic effluents.
2	Domestic	80 KLD	After treatment in STP, the treated waste water shall be utilized onland for irrigation within the industry premises.

ii. Emissions from chimneys:

Chimney No.	Description of Chimney
1	Attached to Raw mill/ Kiln
2	Attached to Coal Mill
3	Attached to Cooler
4	Attached to Cement Mill – I
5	Attached to Cement Mill – II
6	Attached to Lime stone crusher
7	Attached to Transfer Points at Lime Stone conveyers
8	Attached to WHRB Steam boilers – 3 Nos. (15.5 TPH air quenching cooler), (15.1 TPH pre heater) & (8.3 TPH tertiary air duct)

9	Attached to 500 KVA D.G.Set
---	-----------------------------

iii. Hazardous Waste Authorisation (Form – 2) [See Rule 6 (2)]:
M/s. Bhavya Cements Private Limited , Tangeda (V), Dachepalli (M), Palnadu District is hereby granted an authorization to operate a facility for collection, reception, storage, transport and disposal of Hazardous Wastes namely:

• **Hazardous wastes with Disposal option:**

Sl. No	Name of the Waste	Category of the Hazardous waste as per HoW (M&TM) Rules, 2016	Quantity	Mode of disposal
1.	Waste oil/ Used oil from the machinery of existing cement plant	5.1 of Schedule-I	10 KLPA	Shall be routed through M/s. APEMCL so as to send to authorized reprocessing agencies.
2.	Grease for lubrication	5.2 of Schedule-I	0.2 TPA	Reused in the machineries located in the plant premises.
3.	Scraped automobile batteries (ULAB)	-	4 Nos./year	Shall be routed through M/s. APEMCL so as to send to authorized agency / sent back suppliers through APEMC.
4.	STP sludge	35.3 of Schedule-I	24,000 TPA	Shall be routed through M/s. APEMCL so as to use in their cement plant as alternate fuel/co-processing.
5.	Spent Carbon	28.3 of Schedule-I	18,000 TPA	
6.	Spent Organic Residue solid	28.1 of Schedule-I	40,000 TPA	
7.	Spent Gypsum	28.1 of Schedule-I	30,000 TPA	
8.	Waste Grease from the machinery of existing cement plant	5.2 of Schedule-I	6 TPA	

• **Other solid wastes with Disposal option:**

Sl.No	Name of the Waste	Quantity	Mode of disposal
1.	Cement dust	0.2 TPD	Recycled back into process

iv. This consent order is valid for Mining of Limestone to the following quantities only:

Sl. No.	Name of the activity	Quantity
1.	Cement	1.4 Million TPA
2.	Lime stone mining	14,85,000 TPA

3.	Waste Heat Recovery Power Plant (WHRPP) using waste heat recovered from kiln, pre-heater, cooler gases and tertiary air duct	7220 KWH (7.22 MW)
----	--	-----------------------

This order is subject to the provisions of 'the Acts' and 'the Rules' and orders made thereunder and further subject to the terms and conditions incorporated in the schedule A, B & C are enclosed to this order.

This combined order of Consent & Hazardous Waste Authorization shall be valid for a period upto **31st July, 2029.**

B SREEDHAR IAS, MS(BS), O/o MEMBER SECRETARY-APPCB

To
M/s. Bhavya Cements Private Limited,
Tangeda (V), Dachepalli (M),
Palnadu District.

Copy to:

1. The Joint Chief Environmental Engineer, Zonal Office, **Vijayawada** for information.
2. The Environmental Engineer, Regional Office, **Guntur** for information and necessary action.

SCHEDULE-A

1. Any up-set condition in any industrial plant / activity of the industry, which result in, increased effluent / emission discharge and/ or violation of standards stipulated in this order shall be informed to this Board, under intimation to the Collector and District Magistrate and take immediate action to bring down the discharge / emission below the limits.
2. The industry should carryout analysis of waste water discharges or emissions through chimneys for the parameters mentioned in this order on quarterly basis and submit to the Board.
3. All the rules & regulations notified by Ministry of Law and Justice, Government of India regarding Public Liability Insurance Act, 1991 should be followed as applicable.
4. Notwithstanding anything contained in this consent order, the Board hereby reserves the right and powers to review / revoke any and/or all the conditions imposed herein above and to make such variations as deemed fit for the purpose of the Acts by the Board.
5. The industry shall ensure that there shall not be any change in the process technology, source & composition of raw materials and scope of working without prior approval from the Board.
6. The applicant shall submit Environment statement in Form V before 30th September every year as per Rule No.14 of E(P) Rules, 1986 & amendments thereof.
7. The applicant should make applications through Online for renewal of Consent (under Water and Air Acts) and Authorization under HWM Rules at least 120 days before the date of expiry of this order, along with prescribed fee under Water and Air Acts and detailed compliance of CFO conditions for obtaining Consent & HW Authorization of the Board.
8. The industry should immediately submit the revised application for consent to this Board in the event of any change in the raw material used, processes employed,

quantity of trade effluents & quantity of emissions. Any change in the management shall be informed to the Board. The person authorized should not let out the premises / lend / sell / transfer their industrial premises without obtaining prior permission of the State Pollution Control Board.

9. Any person aggrieved by an order made by the State Board under Section 25, Section 26, Section 27 of Water Act, 1974 or Section 21 of Air Act, 1981 may within thirty days from the date on which the order is communicated to him, prefer an appeal as per Andhra Pradesh Water Rules, 1976 and Air Rules 1982, to Appellate authority constituted under Section 28 of the Water(Prevention and Control of Pollution) Act, 1974 and Section 31 of the Air(Prevention and Control of Pollution) Act, 1981.
10. The conditions stipulated are without prejudice to the rights and contentions of this Board in any Hon'ble court of law.
11. The industry shall be liable to pay Environmental Compensation / Other Environmental Taxes, if any environmental damage caused to the surroundings, as fixed by the Collector & District Magistrate or any other competent authority as per the Rules in vogue.
12. The industry may explore the possibility of tapping the solar energy for their energy requirements.
13. The industry should educate the workers and nearby public of possible accidents and remedial measures.

SCHEDULE-B

The item was placed in the Consent Management (CTO) Committee meeting held on 08.08.2024. The industry shall comply with the following conditions:

1. The industry shall replace the damaged coils and operate WHRPP.
2. The industry shall install new CAAQM by end of Oct. 2024.
3. The industry shall develop balance green belt in this monsoon season.
4. The industry shall provide additional hazardous waste storage shed by Dec. 2024.
5. The industry shall submit action plan with timelines immediately for storage of all dusty materials within a period of 6 months. No dust causing materials shall be stored openly under any circumstances.

Water Pollution:

6. The source of water is bore well and Krishna river to draw water quantity of 2600 KL/day (or) 0.06 Cusecs (or) 0.0335 TMC water per year from Krishna river during flood season only as per the G.O.Ms. No. 97 dated 31.08.2018 of the Water Resources (Reforms) department, GoAP. The following is permitted water consumption and consumption shall NOT exceed the quantities mentioned below:

S. No	Purpose	Quantity
1	Process, Washing Boiler feed, Industrial Cooling Makeup	2500 KLD
2	Domestic (Including Plant & Township)	100 KLD
	Total	2600 KLD

Separate meters with necessary pipe line shall be maintained for assessing the quantity of water used for each of the purposes mentioned above.

7. The industry shall comply the following effluent standards based on the disposal point permitted:

Outlet	Parameter	Concentration
1 & 2	pH	6.5-9.0
	Bio-Chemical Oxygen Demand (BOD)	30.00 mg/l
	Total Suspended Solids (TSS)	<100.00 mg/l
	Oil & Grease	10 mg/l
	Fecal Coliform (FC) (Most Probable Number per 100 milliliter, MPN/100ml)	<1000

8. The industry shall provide separate water meters with necessary pipeline for assessing the quality of water used for each of the purposes.
9. The industry shall not wash the freighted vehicles within the industry premises.
10. The domestic water shall be treated in STP, and the treated waste water shall be utilized for green belt development within premises and under any circumstances the industry shall not be discharge outside the industry premises.
11. The industry shall provide separate energy meters for Effluent Treatment Plant/Sewage Treatment Plant and shall maintain log records
12. The industry shall regularly operate the Sewage Treatment Plant for treatment of domestic effluents and shall comply the standards before utilizing the treated waste water for onland for irrigation.
13. Solid waste from sewage treatment plant (STP) shall be used as manure. No solid waste shall be disposed off from the cement plant.

Air Pollution:

14. The industry shall not contain constituents in excess of the prescribed limits mentioned below, as notified by the MoEF&CC, GoI vide G.S.R. No. 612 (E), dated 25.08.2014 and G.S.R. No. 497 (E), dated 10.05.2016.

Chimney No.	Parameter	Emission Standards
1 to 8	Particulate Matter	30 mg/Nm ³
	SO ₂ **	100 mg/Nm ³
	NO _x	600 mg/Nm ³
	HCl	10 mg/Nm ³
	HF	1 mg/Nm ³
	TOC	10 mg/Nm ³
	Hg and its compounds	0.05 mg/Nm ³
	Cd +Tl and their compounds	0.05 mg/Nm ³
	Sb+As+Pb+Co+Cr+Cu+Mn+Ni+V and their compounds	0.5 mg/Nm ³
	Dioxins and Furans	0.1 ngTEQ/ Nm ³
*The norms of SO ₂ & NO _x shall be applicable to kiln only ** Assuming pyritic sulphur to the limestone is less than 0.25 %		
<i>The monitored values of SO₂, NO_x, HCl, HF, TOC, Metals and Dioxins and Furans at main kiln stack shall be corrected to 10% Oxygen, on dry basis and the norms for SO₂, NO_x, HCl, HF, TOC, Metals and Dioxins and Furans shall be applicable to main kiln</i>		

stack and the norms for Particulate Matter (PM) shall be applicable to all the stacks in the plant. PM, SO₂, NO_x shall be monitored continuously. HCl, HF, TOC, Metals and Dioxins and Furans shall be monitored once in a year.

15. The Bag house/ Bag filters shall be designed such that 25% of additional capacity is available as spare to meet the emergency requirements.
16. The proponent shall provide online stack monitoring facility for all the major stacks and the data generated shall be networked with APPCB and CPCB for web display as per CPCB Guidelines.
17. The industry shall provide separate energy meter for Air Pollution Control Equipment and shall maintain log records
18. The industry shall comply with standards as notified by the MoEF&CC, GoI vide G.S.R. No. 612 (E), dated 25.08.2014 and G.S.R. No. 497 (E), dated 10.05.2016.
19. The industry shall ensure compliance with ambient air quality standards of PM₁₀ – 100 micro grams/ m³; PM 2.5 – 60 micro grams/ m³; SO₂ - 80 micro grams/ m³, NO_x 80 micro grams/ m³ (day average standards).

The industry shall comply with National Ambient Air Quality Standards stipulated in CPCB Notification No.B-29016/20/90/PCI-I dated 18.11.2009 and also the

Noise Standards: Day time (6 AM to 10 PM) - 75 dB (A)

Night time (10 PM to 6 AM) - 70 dB (A)

20. The overall noise levels in and around the plant shall be kept well within the standards by providing noise control measures including acoustic hoods, silencers, enclosures, etc., for noise generating sources.
21. The industry shall comply with emission limits for DG sets of capacity upto 800 KW as per the Notification G.S.R. 804(E), dated 03.11.2022, under the Environment (Protection) Act Rules. In case of DG sets of capacity more than 800 KW shall comply with emission limits as per the Notification G.S.R.489 (E), dated 09.07.2002 at serial no.96, under the Environment (Protection) Act, 1986.
22. The industry shall utilize pet coke – 166.70 Tons/day (or) 5,000 Tons/ month as feedstock or in the manufacturing process in the cement kiln in the following proportions:

Case – 01	50 % of Coal	50 % of Pet coke
Case – 02	100 % of Pet coke	

23. The industry shall inform the usage of pet coke as fuel in the process in future with prior intimation to the Board and furnish details of utilization of pet coke, every month to concerned RO.
24. The industry shall provide interlocking system for air pollution control equipments provided with raw material feeding system so that the feeding of raw material would be stopped in case the air pollution control equipments fails.
25. The industry shall maintain concrete roads in the plant and water shall be sprinkled on the roads periodically to control the fugitive dust emissions. Vacuum / pneumatic dust collection system shall be used for cleaning the internal roads.
26. The industry shall maintain continuous stack emission monitoring system for all the major stacks and the data generated shall be networked with APPCB and CPCB for web display as per CPCB directions.
27. The industry should take all measures to control the fugitive emissions during

transportation of lime stone from lime stone crusher (Which is located at other side of the road) to the plant.

- 28.The industry shall maintain adequate dust collection and extraction system to control fugitive emissions at various material transfer points & the dust collected from pollution control equipments shall be recycled back into the process. The compliance status shall be reported to concerned RO.
- 29.The industry shall maintain the water sprinklers at all the fugitive emissions sources, crusher hopper located in the plant from main gate and shall ensure compliance of Ambient Air Quality standards stipulated.
- 30.The industry shall control of fugitive emissions during conveying and handling of various raw materials and finished products.
- 31.The industry shall maintain three CAAQM stations and connect the Ambient Air Quality Monitoring data to the APPCB website for display and report the compliance to Regional Office, Guntur.
- 32.The industry shall ensure regular maintenance and operation of the on-line stack monitoring systems and CAAQM stations with tamper proof mechanism having facilities for online calibration.
- 33.The industry shall ensure compliance to the CPCB guidelines dated.05.02.2014, 02.03.2015 and further notification issued for periodical calibration of online pollution monitoring systems from time to time.
- 34.The industry shall maintain closed conveyor belts for transportation of all the raw materials.
- 35.The industry shall maintain bag filters at all major sources of air pollution / transfer points, silos etc.
- 36.The industry shall ensure implementation of requisite measures to prevent air pollution in the surrounding area and shall develop avenue plantations along the roads and available vacant spaces in coordination with local panchayats.
- 37.Provisions shall be maintained to do the stack monitoring for the stack of cooler discharge as per norms.

Solid waste:

- 38.The industry shall comply with the CPCB Guidelines for Pre-Processing and Co-Processing of Hazardous and Other Wastes in Cement Plant as per H&OW(M & TBM) Rules, 2016, issued on July,2017.
- 39.The industry shall not store the fuels, raw materials and wastes in open area. They shall be transported / receive in covered conditions to control fugitive emissions & odour nuisance.
- 40.All the bag filter dust, raw material dust, coal dust, clinker dust and cement dust from pollution control devices shall be 100% recycled and reused in the process and used for cement manufacturing.
- 41.The industry shall store fly ash in silos and shall be conveyed through pneumatic conveyor for utilization in cement manufacture.
- 42.The industry shall furnish details of fly ash brought from the nearby Coal based Thermal Plants on quantity of fly ash consumed per each ton of product, inventory of fly ash at on-site along with details of measures implemented to mitigate fugitive emissions at various transfers to the concerned R.O, for every three months.
- 43.The industry shall store all the raw materials, hazardous wastes and nonhazardous wastes in dedicated closed sheds only so as to control dust pollution and to meet the ambient Air quality standards.

General:

44. The industry shall not manufacture any product, other than those mentioned in this order, without CTE & CTO of the Board. The industry should not increase the capacity beyond the permitted capacity mentioned in this order, without obtaining CTE & CTO of the Board.
45. The industry shall not stack the raw materials in open place. All the raw materials shall be stored in the sheds.
46. The industry should submit monthly consolidated report of daily operating hours of kiln, ESP and reasons for ESP trippings to the RO, Guntur and Board Office.
47. The industry should not construct anything adjacent to the vagu other than compound wall and should leave sufficient place so that the encroachment of vagu should not take place.
48. The industry shall maintain permanent arrangements for utilization of treated domestic water for plantation purpose within the premises, not treated effluents should join into vaagu.
49. The industry shall furnish the details of fly ash brought from nearby Coal based Thermal Plants and quantity of fly ash consumed per each ton of product, inventory of fly ash at onsite along with details of measures implemented to mitigate fugitive emissions at various transfers to RO Guntur for every three months.
50. The industry should maintain the records on utilised for cement production and stocks maintained at on-site and should submit consolidated reports to the Regional Office of the Board once in six months.
51. The industry should develop and maintain greenbelt including cement plant & township and mine lease area. Green belt should develop in and the outside periphery of the industry.
52. The following rules and regulations (as amended and upgraded from time to time) notified by the MoEF&CC, GoI shall be implemented.
 - a. Regulation of Persistent Organic Pollutants Rules, 2018.
 - b. Hazardous waste and other wastes (Management and Transboundary Movement) Rules, 2016.
 - c. Plastic Waste Management Rules, 2022.
 - d. Manufacture, Storage and Import of Hazardous Chemicals Rules, 1989
 - e. Fly Ash Notification, 2016.
 - f. Battery Waste Management Rules, 2022.
 - g. E-Waste (Management) Rules, 2022.
 - h. Construction and Demolition waste Management Rules, 2016.
 - i. Solid Waste Management Rules, 2016.
 - j. The Public Liability Insurance Act, 1991 and its amendments thereof.
 - k. Bio Medical Waste Management Rules, 2016
53. The industry shall maintain the following records and the same shall be made available to the inspecting officers of the Board:
 - a. Daily production details.
 - b. Quantity of Effluents generated, treated, recycled/reused and disposed.
 - c. Log Books for pollution control systems.
 - d. Characteristics of ambient air, effluents and emissions.
 - e. Hazardous/non hazardous solid waste generated and disposed.
 - f. Inspection book.
 - g. Manifest copies of hazardous waste.
54. the industry shall maintain registration under Plastic Waste Management Rules, 2016 & its amendments thereof as the industry is introducing the plastic into the market

- along with their products and shall furnish EPR plan for collection of the plastic waste.
55. The industry shall dispose the plastic waste generated from the damaged and waste sacks of cement packaging unit as per Plastic Waste Management Rules, 2016 & its amendments thereof.
 56. The industry should maintain the records on utilised for cement production and stocks maintained at on-site and should submit consolidated reports to the Regional Office of the Board once in six months.
 57. The industry shall comply with the conditions stipulated in Environmental Clearance (EC) order dated 22.09.2008.
 58. The conditions stipulated are without prejudice to the rights and contentions of this board in any Hon'ble court of law.
 59. The industry shall comply with standards and directions issued by APPCB / CPCB / MoEF & CC as and when notifications are issued from time to time.
 60. The industry shall install digital display boards at publicly visible places at the main gate indicating the products manufactured Vs permitted quantities, Treated effluent concentrations Vs discharge standards, Stack emission & AAQ concentrations Vs standards, hazardous waste generation, disposed, stock Vs permitted quantities and validity of CFO; and exhibit the CFO order at a prominent place in the factory premises, as per Hon'ble Supreme Court order.
 61. The industry shall install fluorescent Wind Vane at the highest point in the industry premises.
 62. The industry shall submit Half yearly compliance reports to all the stipulated conditions in Environmental Clearance (EC), Consent for Establishment (CFE) and Consent for Operation (CFO) through website i.e., <https://pcb.ap.gov.in> by 1st of January and 1st July of every year. The first half yearly compliance reports shall be furnished by the industry and second half yearly compliance reports shall be the audited through MoEF&CC recognized and National Accreditation Board for Laboratory Testing (NABL) accredited third party.
 63. The industry shall install digital display boards at publicly visible places at the main gate indicating the products manufactured Vs permitted quantities, Treated effluent concentrations Vs discharge standards, Stack emission & AAQ concentrations Vs standards, hazardous waste generation, disposed, stock Vs permitted quantities and validity of CFO; and exhibit the CFO order at a prominent place in the factory premises, as per Hon'ble Supreme Court order.
 64. The mining unit shall provide fixed continuous water spraying system all along the haul road from Mines to Lime stone crushers to minimize the dust emissions before commencement of mining activity as committed by the industry vide its lr. dt.23.04.2015.
 65. The industry shall comply with the standards stipulated for Air & Water, in case of noncompliance, exceedance in stipulated standards and fire accidents; the industry is liable for Environmental Compensation and Environmental Damage Compensation, as per the Central Pollution Control Board (CPCB) assessing methodology of Environmental Compensation.
 66. The industry shall inventorize the storage quantities of hazardous chemicals (raw materials), products, as per the hazard nature of reactivity/ toxicity/flammability/ explosive materials stored/handling in the premises as defined in the MSIHC Rules, 1989 and the details shall be furnished to the Factories Department and to the Regional Office, APPCB on monthly basis duly certifying the same.
 67. The industry shall identify major accident hazard chemicals & list out the hazardous chemicals endangered to human health & environment and the details shall be

furnished to the Factories Department and to the Regional Office, APPCB time to time duly certifying the same by the industry. Further the industry shall extend training to the working personnel's while handling hazardous chemicals for prevention of accidents and necessary antidotes to ensure the safety, as per the MSIHC Rules, 1989 and Amendments thereof.

- 68.The industry shall submit the copy of the safety audit report and On-Site/ Off Site Emergency Plans as applicable after being certified by the Factories Department to the APPCB, Regional Office from time to time, if the storage quantity of hazardous chemicals is equal to or, in excess of the threshold quantities specified in schedule 2 & 3 of MSIHC Rules, 1989 and Amendments thereof.
- 69.The industry shall carryout calibration of safety equipments and leak detection systems at regular intervals and shall certify the same with the Factories Department. That certified copy shall be submitted to the APPCB, Regional Office.
- 70.The industry shall inventorize the hazardous wastes and its quantities stored within the industry premises as per the Hazardous and Other Wastes(Management and Transboundary Movement) Rules, 2016 (HOWM Rules, 2016)and shall furnish the details to Regional Office, APPCB on monthly basis duly certifying the same by the industry.
- 71.The industry shall install fluorescent Wind Vane at the highest point in the industry premises.
- 72.The industry shall submit Risk analysis and risk assessment covering worst scenario clearly describing impact within the industry premises and outside the industry premises and emergency response system.

Special conditions:

1. The industry shall furnish opening and closing stock of Pet Coke along with quantity of Pet Coke consumption during the month to the Board on quarterly basis.
2. The industry shall directly import the pet coke and consignment shall be in the name of the industry for its own use as feed stock only.
3. Import of pet coke for the purpose of trading shall not be permitted.
4. The industry shall submit a copy of the NOC issued by the Andhra Pradesh State Disaster Response and Fire Service Dept., (APSDRFSD) at concerned Regional Office, APPCB.

Mining:

- 73.The mining unit shall ensure that no natural water course shall be obstructed due to any mining operations.
- 74.Catch drains and siltation ponds of appropriate size shall be constructed for the working pit, inter burden and mineral dumps to arrest flow of silt and sediment. The water so collected should be utilized for watering the mine area, roads, greenbelt development, etc. The drains shall be regularly desilted, particularly after monsoon and maintained properly.
- 75.The mining unit shall provide a trench for storm water draining from the mine lease area to aid in preventing the sedimentation of silt and avoid siltation at the discharge end of check dams.
- 76.The mining unit shall explore the possibility to convert mined area into a reservoir by plugging the leakages.
- 77.Ground water tables levels shall be monitored every season. Any lowering of ground water table in comparison to the previous seasons should be reported to Board

immediately. Discarded pits should be allowed to fill with water.

78. The project authority shall implement the following measures to reduce the air pollution during the transportation of the mineral.
- Road shall be graded to mitigate the dust emissions.
 - Overfilling of tippers and consequent spillage on the roads shall be avoided. The trucks shall be covered with tarpaulin.
 - Water shall be sprinkled at regular intervals on the main haul road and other service roads to suppress the dust.
79. The mining unit shall maintain with the following for controlling fugitive emissions.
- Water spraying shall be done on the blasted muck pile before loading by excavator to suppress the dust.
 - To control dust from drilling operations, drilling with dust collectors/wet drilling shall be practiced. Also drill speeds shall be regulated as per guidelines.
 - Regular Water spraying shall be done on haul roads and during unloading at crusher hopper to suppress the dust effectively.
 - Overloading of transport equipment shall be prevented in order to stop spillage.
 - The trucks carrying material shall be fully covered with tarpaulin.
80. The industry shall comply with the following for controlling fugitive emissions.
- Machineries shall be properly maintained to prevent undesirable noise. Attention shall be paid towards rigorous maintenance of the silencers of diesel engines
 - Surface drilling and blasting operations shall not be carried out at night.
 - The drilling shall be done with sharp drilling bits to reduce the generation of noise during drilling
 - Controlled blasting with optimum charge per hole shall be practiced to reduce generation of noise
 - Hydraulic rock breaker shall be used in lieu of secondary blasting
 - Drill machine operators and dumper drivers shall be equipped with earplugs and earmuffs. The duty hours of operators working near the machinery shall be regulated to keep their noise exposure levels within limits
 - Periodical monitoring of noise level of mining machines and at some locations in the mining site shall be done with the help of noise level meter.
81. Top Soil, if any, shall be stacked with adequate measures with proper slope at earmarked site (s) only and shall be used for reclamation /plantation and rehabilitation of mined out areas.
82. All waste material shall be accommodated within the mining Lease area.
83. The industry shall adopt controlled blasting techniques by sequential blasting machines thereby minimizing the ground vibration levels to prescribed limits.
84. The industry shall take all safety measures during blasting operations as per the guidelines of the Mines Department and also to take all the precautionary measures at that time of blasting keeping in view of the villagers safety.
85. Dumping of overburden, if done, should use the retreating pyramid bench formation with concurrent, physical and biological reclamation. Dumps should be contoured and provided with relief control and stabilized. Dump tops should be compacted, leveled and be properly drained.
86. The industry shall construct graded roads connecting the mining area to the nearby roads to avoid dust nuisance due to vehicular movements.
87. Garland drain and Siltation ponds of appropriate size should be constructed for the working pit to arrest flow of silt and sediment. The water so collected should be utilized for watering the mine area, roads, green belt development etc. The drains should be

- regularly desilted, particularly after monsoon, and maintained properly.
88. The industry shall construct required no. of garland drains to arrest mineral particles being carried away as runoff during rainy seasons around the dump yards. Dimensions of the garland rains shall be based on rainfall data.
89. Soil binding and nitrogen fixing plants should be planted in the Mining Lease area. Biological reclamation should be done in two phases, the first phase should be plant appropriate quick growing grass and shrubs and the second phase should grow slower growing native shrubs and trees.
90. Drills shall be water jacketed. Local exhaust ventilation systems shall be installed at dust generation points and the dust is led to a dust collection system.
91. Blasting shall be sequential in such a manner as to achieve minimum vibration.
92. A separate environmental management cell with suitable qualified personnel should be set-up under the control of a Senior Executive, who will report directly to the Head of the Organization.

SCHEDULE – C

[See rule 6(2)]

[CONDITIONS OF AUTHORISATION FOR OCCUPIER OR OPERATOR HANDLING HAZARDOUS WASTES]

1. The following acceptance criteria shall be followed for utilization of Hazardous waste in the rotary kiln.

Specification of HW for use as Alternative raw material:

Parameter	Limit
Volatile Organic Hydrocarbon	< 5000 ppm
Total Organic Carbon(TOC)	< 1000 ppm
CaO+Sio 2+A12O3+Fe2O3+SO3(in Ash)	> 80%
Chloride	< 1.5%
Sulphur	< 1.5%
PCB/PCT(ppm)	< 5.0
Heavy Metals (ppm)	< 10
Hg	< 100
Cd+Ti+Hg	< 10000
As+Co+Ni+Se+Te+Sb+Cr+Sn+Pb+V	

Specification of HW for use as Energy recovery:

Parameter	Limit
Calorific Value As received basis	>2500 k Cal/Kg
Ash	< 5%
-Liquid	< 20%
-Solid	
Chloride	< 1.5 %
Halogens (F+Br+I)	< 1.0 %
Sulphur	< 1.5 %

PCB/PCT (ppm)	< 50
Heavy Metals (ppm)	< 10
Hg	< 100
Cd+Tl+Hg	< 2500
As+Co+Ni+Se+Te+Sb+Cr+Sn+Pb+V	< 2500
pH	4 To 12
Viscosity (cSt) for liquid	<100
Flash Point (Deg Centigrade) (for liquid)	>60

2. The authorised person shall comply with the provisions of the Environment (Protection) Act, 1986, and the rules made there under.
3. The authorisation shall be produced for inspection at the request of an officer authorised by the State Pollution Control Board.
4. The person authorised shall not rent, lend, sell, transfer or otherwise transport the hazardous and other wastes except what is permitted through this authorisation.
5. Any unauthorised change in personnel, equipment or working conditions as mentioned in the application by the person authorised shall constitute a breach of his authorisation.
6. The person authorised shall implement Emergency Response Procedure (ERP) for which this authorisation is being granted considering all site specific possible scenarios such as spillages, leakages, fire etc. and their possible impacts and also carry out mock drill in this regard at regular interval of time;
7. The person authorised shall comply with the provisions outlined in the Central Pollution Control Board guidelines on “Implementing Liabilities for Environmental Damages due to Handling and Disposal of Hazardous Waste and Penalty”.
8. It is the duty of the authorised person to take prior permission of the State Pollution Control Board to close down the facility.
9. An application for the renewal of an authorisation shall be made as laid down under these Rules.
10. Any other conditions for compliance as per the Guidelines issued by the Ministry of Environment, Forest and Climate Change or Central Pollution Control Board from time to time.
11. Only the permitted alternate fuels should be used for the co-processing.
12. The industry should follow the guidelines for labeling, transportation, storage and disposal of hazardous waste.
13. The wastes of high calorific value have to be always fed into the high temperature combustion zones of the Kiln system. Such waste containing stable toxic components should be fed to the main burner to ensure complete combustion in the high temperature and long retention time.
14. The industry shall verify the compatibility of the different wastes before blending the waste.
15. The industry shall take all safety measures to prevent accidents while handling the hazardous wastes.
16. The industry shall take all precautionary measures to prevent odour nuisance and spillages while handling the hazardous wastes.
17. The industry shall provide dyke walls for storage tanks / areas to contain spillages.
18. The industry shall submit the emission monitoring reports to all the critical parameters, as per the CPCB guidelines for co-processing of hazardous wastes through NABL accredited laboratory.

Specific Conditions:

19. The industry shall enter an agreement with the generator to receive of utilizable waste for co-processing.
20. The industry shall comply with the provisions of HWM Rules, 2016 in terms of interstate transport of Hazardous Waste and manifest document prescribed Under Rule 18 and 19 of the HWM Rules, 2016. 21. The industry shall not store hazardous waste for more than 90 days as per the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.
21. The cement plant shall take the hazardous wastes only from the authorized generator through APEMCL.
22. Cement industry shall provide adequate covered storage area for the hazardous waste in accordance with hazardous waste Rules and guidelines for storage of hazardous waste. The occupier shall also ensure that there is no leaching of any pollutant.
23. The industry shall accept the hazardous waste/ other wastes as a raw material and alternative fuel for co-processing in cement kiln through online manifest system as per Hazardous and other Wastes (Management and Transboundary Movement) Rules, 2016.
24. The industry shall carryout pre-processing and co-processing of wastes as per the guidelines of CPCB and Standard Operating Procedures (SOPs) specified in the guidelines.
25. A log book shall be maintained for the quantity of waste received from generators, storage details & co-processed and same shall be submitted to RO: Kadapa, APPCB on monthly basis.
26. The actual quantity of hazardous waste co-processed monthly shall be reported by cement plant and hazardous waste generator to RO: Kadapa, APPCB.
27. The industry shall store Used / Waste Oil and Used Lead Acid Batteries in a secured way in their premises till its disposal to the manufacturers / dealers on buyback basis.
28. The industry shall receipt the hazardous waste through vehicle fitted with authorized GPS tracking system. 30. The industry shall accept the waste through 7 copy online manifest system from generators and a copy shall be submitted to concerned Regional Office of APPCB. The driver who transports Hazardous Waste should be well acquainted about the procedure to be followed in case of an emergency during transit. The transporter should carry a Transport Emergency (TREM) Card.
29. The industry shall maintain proper records for Hazardous and Other Wastes stated in Authorisation in Form-3 i.e., quantity of Incinerable waste, land disposal waste, recyclable waste etc., and file annual returns in Form-4 as per Rule 20 (2) of the Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016.
30. In case of any violations in the conditions stipulated, the permission can be withdrawn at any time.

B SREEDHAR IAS, MS(BS), O/o MEMBER SECRETARY-APPCB

**To
M/s. Bhavya Cements Private Limited ,
Tangeda (V), Dachepalli (M), Palnadu District.**